OS3 Teletypewriter Editor Manual (Revised)

by

Fred Dayton
and
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May, 1968
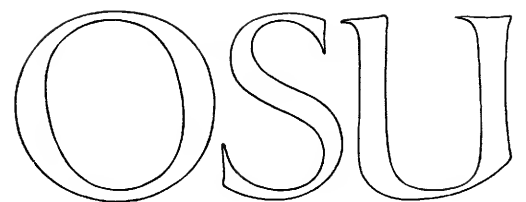
A REVISED MANUAL FOR

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]BX\KSP      MOVE/R        REP      TABSTATUS
 A            U    E        Q           A
 C            T    P        U           P
 K            P    L        I           E
]SAR          U    A        P           -
 P            T    C        -           F
 A            -    E        O           I
 C            F    /        U           L
]EPRINT      APPEND        TTP          E
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THE

OS-3 TELETYPE EDITOR

BY

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MAY 1968

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EDIT

THE EDIT PROGRAM WITHIN THE OS-3 OPERATING SYSTEM ALLOWS
THE USER TO GENERATE, ALTER, OR LIST FILES. TO ENTER THE EDIT
PROGRAM, THE USER MUST HAVE HIS TELETYPE IN THE CONTROL MODE.
TO VERIFY THAT ONE IS IN THE CONTROL MODE, ONE SHOULD TYPE
(CS,A). AFTER THE # HAS BEEN PRINTED, THE USER SHOULD TYPE
EDIT(CR). THE CARRIAGE WILL RETURN, LINESPACE, AND PRINT)
IN THE LEFT MARGIN INDICATING THAT EDIT IS IN THE COMMAND MODE.

ALL EDITING OPERATIONS ARE PERFORMED IN A CORE MEMORY
WORK AREA. INFORMATION TO BE EDITED MUST BE TRANSFERRED INTO
THIS AREA TO BE MODIFIED. MODIFIED INFORMATION MUST BE COPIED
OUT TO SOME OTHER FILE STORAGE BEFORE IT CAN BE USED BY ANY OTHER
PART OF THE OS-3 SYSTEM. ONLY INFORMATION WHICH CAN BE REPRESENTED
ON A TELETYPE MAY BE PROCESSED USING EDIT. BINARY MACHINE
LANGUAGE PROGRAMS ARE ABOUT THE ONLY FORM OF INFORMATION WHICH
CANNOT BE HANDLED BY EDIT.

THE EDIT PORTION OF OS-3 MAY BE USED ONLY FROM REMOTE
TELETYPES.

ADDITIONAL NOTATION FOR THIS PART OF THIS MANUAL

(LINE)

THE EDIT PROGRAM USES LINE NUMBERS TO REFERENCE TEXT BEING
EDITED. THESE LINE NUMBERS MAY BE ASSIGNED BY THE USER, OR INDIRECTLY,
BY THE EDIT PROGRAM. WHERE SEVERAL LINE PARAMETERS ARE NEEDED IN
COMMANDS, A MODIFYING DIGIT WILL BE ADDED (LINE 3). A SINGLE LINE
IS THE SMALLEST BLOCK OF INFORMATION WHICH CAN BE HANDLED BY THE
EDITOR. LINE NUMBERS ASSOCIATED WITH THE TEXT BEING EDITED ARE
PRINTED AT THE LEFT MARGIN OF THE TELETYPE PAGE AND ARE SEPARATED
FROM THE REGULAR TEXT BY A COLON(:). IF THERE IS NO LINE NUMBER
ASSOCIATED WITH A LINE, THERE WILL BE SPACES IN PLACE OF THE LINE
NUMBER; THE COLON WILL STILL BE PRINTED.

LINE NUMBER ZERO IS PERMANENTLY ASSIGNED TO A FICTITIOUS
LINE WHICH IS LOCATED IMMEDIATELY BEFORE THE FIRST LINE OF TEXT IN
THE USER'S WORK AREA. THIS LINE WILL ALWAYS BE PRESENT, BUT WILL
NEVER BE COPIED BY ANY FORM OF OUTPUT COMMAND.

LIMITED LINE NUMBER ARITHMETIC OF THE FORM LINE+C (WHERE C IS
A CONSTANT) IS ALLOWED WHEREVER LINES ARE REFERENCED WITHIN EDIT.
ADDITION IS THE ONLY ARITHMETIC OPERATION ALLOWED. THIS FEATURE IS
HANDY WHEN WORKING WITH UN-NUMBERED LINES INTERSPERSED AMONG NUMBERED
LINES. LINE 29+6 WOULD REFER TO THE SIXTH LINE PAST LINE NUMBER 29.

THE FOLLOWING INFORMATION IS BASIC TO ALL EDIT OPERATIONS

THE FOLLOWING OPERATIONS MAY BE USED IN EITHER THE COMMAND OR THE TEXT MODES. COMMAND MODE IS INDICATED BY THE] PRINTED AT THE LEFT MARGIN.

THE AT SIGN [@] (UPPER CASE LETTER P) IS USED TO INDICATE THAT THE USER WISHES TO RETYPE A LINE. WHEN THE [@] IS PRINTED, THE CARRIAGE WILL NOT RETURN, BUT ALL INFORMATION UP TO AND INCLUDING [@] IS IGNORED. THE USER MAY CONTINUE TYPING ON THE SAME LINE, REENTERING THE DESIRED INFORMATION; THE LINE MUST EVENTUALLY END WITH [CR].

THE BACKSLASH [\] (UPPER CASE LETTER L) MAY BE USED TO DELETE INDIVIDUAL CHARACTERS WITHIN A LINE OF TYPING. FOR EXAMPLE: ABCC\DEFF\\FG[CR] WOULD BE TAKEN AS ABCDEFG[CR].

THE CARRIAGE RETURN [CR] IS USED AT THE END OF EVERY LINE TO INDICATE TO THE COMPUTER THAT THE USER WISHES IT TO PROCESS THE LINE OF INFORMATION JUST TYPED. THE CARRIAGE WILL RETURN, LINESPACE, AND TYPE THE] IF IN COMMAND MODE.

THE [TAB] KEY (EQUIVALENT TO [CS,I]) IS USED TO CAUSE A
TAB IN A WAY EXACTLY SIMILAR TO THAT OF AN ORDINARY TYPEWRITER.
[TAB] WILL CAUSE THE COMPUTER TO SPACE TO THE NEXT SET STOP,
WHETHER THE TELETYPE MOVES OR NOT. TAB STOPS ARE PRESET TO 10,
20, 40, AND 72; THESE MAY BE CHANGED BY THE USER WITH A TAB
COMMAND.

THE BELL WILL BE RUNG WHENEVER AN ERROR OCCURS SUCH THAT A
COMMAND CANNOT BE PROPERLY EXECUTED. THE EDITOR WILL THEN RETURN
TO THE COMMAND MODE INDICATED BY A].

APPEND,(LUN)[CR]

THE APPEND COMMAND WILL ADD TEXT TO THE END OF THE EDIT WORK AREA FROM THE LOGICAL UNIT SPECIFIED. INFORMATION ON THIS (LUN) MAY BE IN ANY FORM GENERATED BY THE EDIT PROGRAM. IF NO (LUN) IS SPECIFIED, THEN THE TEXT IS TAKEN FROM THE TELETYPE WITH LINE SEQUENCE NUMBERS PROVIDED. THESE LINE NUMBERS CONTINUE FROM THE LAST SEQUENCE NUMBER FOUND IN THE TEXT.

A NAME MAY BE SUBSTITUTED FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND; THIS NAME MUST REFER TO A CURRENTLY SAVED FILE. THIS FILE WILL BE REWOUND BEFORE USE.

EXAMPLES OF APPEND COMMANDS ARE:

    APPEND[CR]

    APPEND,5[CR]

    APPEND,ZAP[CR]

BACKSPACE,(LUN),(LUN),....,(LUN)[CR]

THIS COMMAND CAUSES EACH OF THE LOGICAL UNITS LISTED TO BACK UP ONE LINE. IF THE LOGICAL UNIT HAPPENED TO BE REWOUND, THEN THIS COMMAND WILL HAVE NO EFFECT. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE; THE (LUN) WILL BE BACKSPACED ONCE FOR EACH TIME IT IS LISTED.

EXAMPLES OF BACKSPACE COMMANDS ARE:

BACKSPACE,23,89,90,71[CR]

BACKSPACE,23[CR]

BACKSPACE,34,34,34[CR]

BKSP,(LUN),(LUN),...(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE BACKSPACE COMMAND.

EXAMPLES OF BKSP COMMANDS ARE:

BKSP,65,31[CR]

BKSP,23[CR]

BKSP,34,34,34,34[CR]

BKSPACE,(LUN),(LUN),....,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE BACKSPACE COMMAND.

EXAMPLES OF BKSPACE COMMANDS ARE:

BKSPACE,31,2[CR]

BKSPACE,26[CR]

BKSPACE,34,34,34[CR]

CIN,(LUN)[CR]

THIS COMMAND IS USED TO ENTER INFORMATION IN COSY FORMAT
INTO THE EDIT WORK AREA. THE WORK AREA IS CLEARED BEFORE EXECUT-
ION OF THIS COMMAND. LEADING BINARY CODED DECIMAL, BCD, RECORDS ARE
IGNORED; INPUT BEGINS WITH THE FIRST COSY BINARY RECORD. LINE
SEQUENCE NUMBERS STARTING WITH 1 AND INCREASING IN INCREMENTS OF
1 ARE STORED WITH EACH LINE. CIN WILL REWIND LOGICAL UNITS
NUMBERED BETWEEN 50 AND 59, IF POSSIBLE, BEFORE EXECUTION.
IF NO (LUN) IS SPECIFIED, THEN LOGICAL UNIT 54 IS ASSUMED.
WHEN THE LAST COSY RECORD HAS BEEN PROCESSED, CIN WILL SEARCH
FORWARD PAST FILE MARK IF THE HARDWARE TYPE ALLOWS.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED
FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND; THIS NAME MUST
REFER TO A CURRENTLY SAVED FILE.

EXAMPLES OF CIN COMMANDS ARE:

    CIN,45[CR]

    CIN[CR]

    CIN,ZAP[CR]

CLEAR,(LUN),(LUN),...(LUN)[CR]

THE CLEAR COMMAND MODE INSTRUCTION WILL RESET CERTAIN INDICATORS ASSOCIATED WITH EACH OF THE LOGICAL UNITS LISTED. THE INDICATORS WHICH ARE RESET INCLUDE:

FILE MARK JUST READ

REVERSE READ SET

BINARY RECORD PROCESSED

THE FOLLOWING INDICATORS ARE NOT CHANGED:

FILE PROTECT

LOAD POINT

END OF DATA

EXAMPLES OF CLEAR INSTRUCTIONS ARE:

CLEAR,33,99,71[CR]

CLEAR,26[CR]

COSYIN,(LUN)[CR]

    THIS IS AN ALTERNATE FORM OF THE CIN COMMAND.

EXAMPLES OF COSYIN COMMANDS ARE:

    COSYIN,45[CR]

    COSYIN[CR]

    COSYIN,ZAP[CR]

COSYOUT,(LUN),DECKID,ED[CR]

THIS ROUTINE WILL WRITE OUT A COSY COMPRESSED DECK OF THE TEXT
IN THE WORK AREA. IF (LUN) IS NOT SPECIFIED (LUN)54 IS ASSUMED.
COSYOUT WILL WRITE A FILE MARK AND IF THE (LUN) IS BACKSPACEABLE
EDIT WILL WRITE A SECOND FILE MARK AND BACKSPACE OVER IT. IF
BOTH DECKID AND ED ARE OMITTED THEN NO COSY/ CARD IS GENERATED. IF
EITHER PARAMETER IS PRESENT THEN A BCD CARD DECKID COSY/ ED WILL BE
GENERATED. DECKID MAY BE ANY STRING OF UP TO 8 BCD CHARACTERS
TERMINATED BY A COMMA. ED MAY BE ANY NUMBER BETWEEN 1 AND
99. IF ED IS OMITTED THEN 01 IS USED. IF DECKID IS OMITTED
THEN BLANKS ARE USED.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED
FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND.
IF A PREVIOUSLY DEFINED NAME IS USED, THE FILE ASSOCIATED WITH
IT WILL BE REWOUND BEFORE USE, IF THE NAME HAS NOT BEEN
PREVIOUSLY DEFINED, THEN A NEW FILE IS GENERATED AND SAVED.

EXAMPLES OF COSYOUT COMMANDS ARE:

    COSYOUT[CR]

    COSYOUT,ZAP[CR]

    COSYOUT,50,ZILCH,22[CR]

COUT,(LUN),DECKID,ED[CR]

     THIS IS AN ALTERNATE FORM OF THE COSYOUT COMMAND.

EXAMPLES OF COUT COMMANDS ARE:

     COUT[CR]

     COUT,ZAP[CR]

     COUT,50,ZILCH,22[CR]

DELETE,(NAME)[CR]

THE DELETE COMMAND IS USED TO DESTROY A SAVED FILE AT THE END OF THE CURRENT SESSION WITH THE COMPUTER. (NAME) DOES NOT HAVE TO APPEAR IN A PREVIOUS EQUIP COMMAND; THE SAVED FILE MAY NOT BE FILE PROTECTED. IF (NAME) WAS NOT EQUIPPED, THEN THE CONTENTS OF THE FILE WILL BE DESTROYED AS SOON AS THIS COMMAND IS EXECUTED.

EXAMPLES OF DELETE COMMANDS ARE:

DELETE,PROGRAM[CR]

DELETE,DATA[CR]

EPRINT(CR)

     THIS COMMAND WILL CAUSE THE LAST ERROR MESSAGE WHICH THE USER ENCOUNTERED TO BE PRINTED ON THE TELETYPE. THIS IS USEFUL WHEN THE USER CHOOSES NOT TO HAVE ERROR MESSAGES NORMALLY PRINTED.

AN EXAMPLE OF AN EPRINT COMMAND IS:

     EPRINT(CR)

EQUIP,(LUN)=(ELEMENT)[CR]

THE EQUIP STATEMENT ALLOWS THE USER TO ASSOCIATE LOGICAL UNIT
NUMBERS WITH PARTICULAR PIECES OF HARDWARE. THESE DEVICES ARE SUBSEQU-
ENTLY REFERRED TO BY (LUN). THE (LUN), LOGICAL UNIT NUMBER,
MUST BE AN INTEGER CONSTANT BETWEEN 0 AND 99. NORMALLY, THE
FOLLOWING LOGICAL UNITS ARE ASSOCIATED WITH THE FOLLOWING
DEVICES:

(LUN)	DEVICE
60	TELETYPE INPUT
61	TELETYPE OUTPUT

THE (ELEMENT) TO THE RIGHT OF THE EQUAL SIGN MUST BE
A PREVIOUSLY DEFINED LOGICAL UNIT NUMBER (60,61, OR A (LUN)
WHICH APPEARS TO THE LEFT OF THE EQUAL SIGN IN AN EARLIER EQUIP
STATEMENT) OR ONE OF THE FOLLOWING:

FILE   THE WORD FILE IS USED TO SET A (LUN) AS A FILE
          STORAGE AREA. THIS STORAGE AREA MAY BE SAVED BY
          USING A SAVE CONTROL MODE INSTRUCTION. IF THE
          FILE IS NOT SAVED, IT WILL BE DESTROYED WHEN THE
          USER LOGS OFF, OR THE (LUN) IS UNEQUIPPED.

(NAME)   THE (NAME) IS USED TO EQUIP A (LUN) EQUIVALENT
          TO THE FILE (NAME). (NAME) MAY BE THE NAME OF
          A PUBLIC FILE, OR THE NAME OF ONE OF THE USER'S
          PRIVATE FILES WHICH HE HAS PREVIOUSLY SAVED UNDER
          THE CURRENTLY USED ACCOUNT NUMBER AND USER NUMBER.

NULL   THE WORD NULL IS USED TO EQUIP A DEVICE WHICH
WILL DESTROY ANY INFORMATION SENT TO IT. IT MAY
BE THOUGHT OF AS A LINE PRINTER FEEDING DIRECTLY
INTO AN INCINERATOR.

PLOT   THE WORD PLOT IS USED TO DEFINE A LOGICAL UNIT NUMBER
EQUIVALENT TO AN X-Y PLOTTER. INFORMATION SENT TO THIS
UNIT IN THE PROPER FORM WILL BE PLOTTED ON PAPER IN
THE COMPUTER ROOM.

PR   THE LETTERS PR OR THE LETTERS LP ARE USED TO

LP   EQUIP A LINE PRINTER AS AN OUTPUT DEVICE. ANY
INFORMATION SENT TO THIS (LUN) WILL BE PRINTED
ON THE HIGH SPEED LINE PRINTER IN THE COMPUTER
ROOM.

PUN   THE LETTERS PUN ARE USED TO EQUP A CARD PUNCH
AS AN OUTPUT DEVICE. INFORMATION SENT TO THIS
(LUN) WILL BE PUNCHED ON CARDS IN THE COMPUTER
ROOM.

ONLY A SINGLE (LUN) MAY BE EQUIPPED IN EACH EQUIP STATEMENT.
AFTER EXECUTION OF AN EQUIP STATEMENT, THE TELETYPE WILL RETURN
TO COMMAND MODE FOR ANOTHER INSTRUCTION. A PARTICULAR (LUN)
MAY NOT BE USED ON THE LEFT OF THE EQUAL SIGN IN AN EQUIP STATEMENT
MORE THAN ONCE. IF ONE WISHES TO REDEFINE A (LUN) HE MUST
UNEQUIP IT FIRST.

EXAMPLES OF EQUIP COMMANDS ARE:

        EQUIP,04=FILE[CR]

        EQUIP,02=61[CR]

        EQUIP,63=FTNLIB[CR]

        EQUIP,45=04[CR]

        EQUIP,31=PR[CR]

        EQUIP,99=NULL[CR]

        EQUIP,71=PLOT[CR]

ERASE,(LINE 1),(LINE 2),[CR]

    THE ERASE COMMAND IS USED TO DELETE INFORMATION FROM THE EDIT
WORK AREA. (LINE 1) SPECIFIES THE NUMBER OF THE FIRST LINE TO BE
ERASED. (LINE 2) IDENTIFIES THE NUMBER OF THE LAST LINE TO BE
ERASED. ALL LINES BETWEEN (LINE 1) AND (LINE 2) ARE ALSO DESTROYED.
(LINE 2) MUST BE ASSOCIATED WITH A LINE WHICH APPEARS AFTER (LINE 1)
IN THE WORK AREA.

    IF (LINE 2) IS OMITTED THEN ONLY (LINE 1) IS ERASED. IF EITHER
(LINE 1) OR (LINE 2) IS INVALID, AN ERROR MESSAGE IS TYPED AND THE
WORK AREA IS NOT CHANGED.

EXAMPLES OF ERASE COMMANDS ARE:

    ERASE,20,30[CR]

    ERASE,39,71+3[CR]

    ERASE,23[CR]

ERPOFF[CR]

THIS COMMAND WILL INSTRUCT THE EDITOR NOT TO PRINT ERROR MESSAGES. WHEN AN ERROR OCCURS, THE BELL WILL RING, AND THE TELETYPE WILL RETURN TO THE COMMAND MODE. THE MESSAGE ASSOCIATED WITH THE ERROR WHICH HAS JUST OCCURRED MAY BE PRINTED BY USING THE EPRINT COMMAND.

AN EXAMPLE OF AN ERPOFF COMMAND IS:

ERPOFF[CR]

ERPON[CR]

THIS COMMAND WILL CAUSE ERROR MESSAGES TO BE PRINTED AS THEY OCCUR.

AN EXAMPLE OF AN ERPON COMMAND IS:

ERPON[CR]

FETCH,(LUN)[CR]

THIS COMMAND WILL TRANSFER INFORMATION INTO THE EDIT WORK AREA.
THIS TEXT MUST HAVE BEEN SAVED BY A FILE COMMAND. IF NO (LUN) IS
SPECIFIED, THEN LOGICAL UNIT 55 IS ASSUMED.

THE SEQUENCE NUMBERS FOR EACH LINE, THE TAB STOPS AND
THE SEQUENCE AND INCREMENT PARAMETERS (S AND I) ARE RESTORED.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED
FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND. THIS NAME MUST REFER
TO A CURRENTLY SAVED FILE; THIS FILE WILL BE REWOUND BEFORE
USE.

EXAMPLES OF FETCH COMMANDS ARE:

    FETCH,37[CR]
    FETCH[CR]
    FETCH,ZAP[CR]

FILE,(LUN)[CR]

THIS COMMAND WILL SAVE THE CONTENTS OF THE WORK AREA
ON A FILE. THE (LUN) MUST ALWAYS BE EQUIPED AS A FILE. THE
TAB SETTING, SEQUENCE PARAMETERS (S AND I), ALONG WITH THE
SEQUENCE NUMBERS FOR EACH LINE ARE SAVED. IF (LUN) IS
OMITTED, THEN LOGICAL UNIT 55 IS ASSUMED. SINCE THIS COMMAND COMP-
RESSES INFORMATION TO SAVE FILE SPACE, THIS COMMAND SHOULD BE USED
TO SAVE INFORMATION FROM THE EDIT WORK AREA. THE FORTRAN COMPILER
WILL ACCEPT INFORMATON STORED WITH THIS COMMAND, BUT A RUNNING
PROGRAM CANNOT PROPERLY DECODE DATA IN THIS FORM.

A NAME CONSISTING OF UP TO 8 CHARACTERS MAY BE SUBSTITUTED
FOR THE LOGICAL UNIT NUMBER IN THIS COMMAND.
IF A PREVIOUSLY DEFINED NAME IS USED, THE FILE ASSOCIATED WITH
IT WILL BE REWOUND BEFORE USE, IF THE NAME HAS NOT BEEN
PREVIOUSLY DEFINED, THEN A NEW FILE IS GENERATED AND SAVED.

EXAMPLES OF FILE COMMANDS ARE:

        FILE,40[CR]

        FILE[CR]

        FILE,WALT[CR]

FIN,(LUN)[CR]

THE FIN COMMAND STANDING FOR FILE INPUT IS USED TO ENTER
INFORMATION TO THE EDIT WORK AREA FROM THE LOGICAL UNIT SPECIFIED.
INPUT FROM THIS UNIT CONTINUES UNTIL A FILE MARK OR END OF DATA
IS ENCOUNTERED. NO SEQUENCE NUMBERS ARE PROVIDED, AND THE WORK
AREA IS CLEARED BEFORE THE COMMAND IS EXECUTED.
IF NO (LUN) IS SPECIFIED IN THE FIN COMMAND, THEN (LUN) 54 IS
ASSUMED. THE FIN COMMAND WILL REWIND LOGICAL UNITS NUMBERED
BETWEEN 50 AND 59 BEFORE EXECUTION.

A SAVED FILE NAME MAY BE SUBSTITUTED FOR (LUN). IF THIS IS
DONE, THE FILE WILL BE REWOUND BEFORE THE INFORMATION IS TRANS-
FERED TO THE WORK AREA.

A FIN COMMAND WILL TRANSFER ANY VALID TYPE OF INFORMATION
TO THE EDIT WORK AREA FROM A FILE.

EXAMPLES OF FIN COMMANDS ARE:

    FIN,34[CR]

    FIN[CR]

    FIN,DATA[CR]

FINPUT,(LUN)[CR]

>THIS IS AN ALTERNATE FORM OF THE FIN COMMAND.

EXAMPLES OF FINPUT COMMANDS ARE:

>FINPUT,34[CR]

>FINPUT[CR]

>FINPUT,DATA[CR]

FP,(LUN)[CR]

THE LETTERS FP ARE USED TO INDICATE FILE PROTECT. (LUN) MUST
BE EITHER A SAVED FILE NAME CONSISTING OF UP TO EIGHT CHARACTERS,
OR A PREVIOUSLY EQUIPPED LOGICAL UNIT NUMBER WHICH MUST REFER
TO A FILE. FILE PROTECTION PREVENTS THE USER FROM TAKING ANY
ACTION WHICH WOULD DESTROY OR MODIFY THE CONTENTS OF THE
FILE (LUN). INFORMATION MAY STILL BE READ FROM THE FILE.
A PROTECTED FILE WHICH THE USER DOES NOT SAVE, WILL BE DESTROYED
AT THE END OF HIS JOB. FILE PROTECTION MAY BE REMOVED BY USING
THE RFP,(LUN) CONTROL MODE INSTRUCTION.

EXAMPLES OF FILE PROTECT COMMANDS ARE:

FP,33[CR]

FP,45[CR]

FP,PROGRAM[CR]

FWDSPACE,(LUN),(LUN),...,(LUN)[CR]

THIS COMMAND MODE INSTRUCTION CAUSES EACH LOGICAL UNIT SPECIFIED
TO BE SPACED FORWARD ONE LINE. IF A (LUN) IS ALREADY AT THE END
OF DATA, THEN THIS COMMAND WILL HAVE NO EFFECT.
ANY NUMBER OF LOGICAL UNITS MAY BE LISTED; ALL MUST HAVE BEEN
PREVIOUSLY DEFINED. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE;
THE (LUN) WILL FORWARD SPACE ONCE FOR EACH TIME IT IS LISTED.

EXAMPLES OF FWDSPACE COMMANDS ARE:

    FWDSPACE,34,98,20,91[CR]

    FWDSPACE,23,23,23[CR]

FWSP,(LUN),(LUN),...,(LUN)[CR]

    THIS IS AN ALTERNATE FORM OF THE FWDSPACE COMMAND.

EXAMPLES OF FWSP COMMANDS ARE:

    FWSP,2,67,23[CR]

    FWSP,41[CR]

    FWSP,67,67,67,67,[CR]

INPUT,S,I[CR]

THE INPUT COMMAND PREPARES A WORK AREA IN THE COMPUTER
MEMORY FOR THE TEMPORARY STORAGE OF INFORMATION. A SEQUENCE
NUMBER FOLLOWED BY A COLON (:) IS PROVIDED FOR EACH LINE. THE
PARAMETERS S AND I IN THE INPUT COMMAND SPECIFY THE FIRST
SEQUENCE NUMBER AND THE SEQUENCE NUMBER INCREMENT, RESPECTIVELY.
IF BOTH OR EITHER ONE IS OMITTED, THE VALUE LAST SET BY AN INPUT
OR RESEQ COMMAND IS ASSIGNED TO THE MISSING PARAMETER (THE
PARAMETERS ARE SET TO 1 WHEN EDIT IS TYPED.)

AFTER EDIT TYPES A LINE NUMBER AND COLON, THE USER SHOULD ENTER
THE DESIRED TEXT. EACH LINE OF TEXT MUST END WITH [CR]. TO TERMINATE
AN INPUT OPERATION AND RETURN FROM TEXT TO COMMAND MODE, THE USER
SHOULD DEPRESS [ESC], OR [CS,W], OR [ALT MODE].

THE INPUT COMMAND DESTROYS ANY INFORMATION WHICH MAY HAVE ALREADY
BEEN IN THE USER'S EDIT WORK AREA.

EXAMPLES OF INPUT COMMANDS ARE:

INPUT,100,100[CR]

INPUT[CR]

INPUT,,5[CR]

INPUT,100[CR]

INSERT,(LINE)[CR]

THE INSERT COMMAND ALLOWS THE USER TO INSERT INFORMATION BETWEEN EXISTING LINES IN THE EDIT WORK AREA. AFTER THIS COMMAND IS GIVEN THE EDIT PROGRAM ENTERS THE TEXT MODE, ACCEPTING INFORMATION WHICH IT WILL INSERT FOLLOWING (LINE) IN THE WORK AREA. FIVE SPACES AND A COLON (:) ARE PRINTED FOR EACH LINE INSERTED.

ANY NUMBER OF LINES MAY BE ENTERED; EACH MUST BE FOLLOWED BY [CR]. NO LINE SEQUENCE NUMBERS ARE PROVIDED FOR THESE INSERTED LINES, HOWEVER. TO TERMINATE AN INSERT OPERATION AND RETURN FROM TEXT TO COMMAND MODE, THE USER SHOULD DEPRESS [ESC], [CS,W] OR [ALT MODE].

IF (LINE) IS OMITTED, THE TEXT IS INSERTED BEFORE THE FIRST LINE OF THE WORK AREA. IF (LINE) IS INVALID, THE COMMAND IS REJECTED.

EXAMPLES OF INSERT COMMANDS ARE:

INSERT,189[CR]

INSERT[CR]

INSERT,22+3[CR]

INSERT,0+2[CR]

LASTLINE[CR]

THIS COMMAND CAUSES THE LINE NUMBER OF THE LAST SEQUENCED LINE IN THE EDIT WORK AREA TO BE LISTED ON THE USER'S TELETYPE.

AN EXAMPLE OF THE LASTLINE COMMAND IS:

LASTLINE[CR]

LIBRARYCALL,PARAMETERS

THE EDITOR ALLOWS CALLS TO SYSTEM PROCESSORS (SUCH AS FORTRAN, ALGOL,...ETC.). FOR INFORMATION CONCERNING THESE ROUTINES AND THEIR PARAMETER CONSULT THE OS-3 USER'S MANUAL (BY MR. W. MASSIE) OR THE OS-3 REFERENCE MANUAL (BY MR. G. BACHELOR).

THE FOLLOWING IS A LIST OF VALID LIBRARY CALLS:

    ALGOL

    COMPASS

    COSY

    FORTRAN

    LOAD

    OSCAR

    RADAR

EXAMPLES OF LIBRARY CALLS ARE:

    ALGOL,L=5,X,I=7[CR]

    COMPASS,L=2,R,P,S,I=50[CR]

    COSY,LOG=7[CR]

    FORTRAN,L=7,I=ZING[CR]

    LOAD,50[CR]

    LOAD,I=56[CR]

    OSCAR[CR]

    RADAR[CR]

LIST,(LINE 1),(LINE 2)[CR]

　　　THE LIST COMMAND CAUSES THE COMPUTER TO LIST THE CONTENTS
OF THE WORK AREA ON THE USER'S TELETYPE. (LINE 1) AND (LINE 2)
ARE, RESPECTIVELY, THE FIRST AND LAST LINE NUMBER WHICH THE
USER WISHES TO HAVE TYPED. IF BOTH PARAMETERS ARE OMITTED, THEN
ALL THE WORK AREA IS LISTED. IF (LINE 1) IS OMITTED THEN LINES FROM
THE BEGINNING OF THE WORK AREA THROUGH (LINE 2) ARE LISTED. IF
(LINE 2) IS OMITTED, THEN (LINE 1) IS LISTED. IF (LINE 2) IS ZERO
(LINE 1) AND ALL LINES AFTER IT ARE LISTED.

　　　IF THE USER SPECIFIES A LINE SEQUENCE NUMBER
WHICH DOES NOT EXIST IN THE WORK AREA, AN ERROR MESSAGE IS
PROVIDED AND THE COMPUTER RETURNS TO THE COMMAND MODE.

　　THE [BREAK] KEY MAY BE USED TO TERMINATE AN UNDESIRED
LISTING OPERATION; THE USE OF [BREAK] WILL RETURN THE COMPUTER
TO CONTROL MODE. THE USER MUST THEN TYPE MI[CR] TO GET BACK TO
THE EDITOR PROGRAM WITHOUT DESTROYING THE INFORMATION IN HIS EDIT
WORK AREA.

EXAMPLES OF THE LIST COMMAND ARE:

　　　LIST,1,8[CR]

　　　LIST,8[CR]

　　　LIST,,8[CR]

　　　LIST[CR]

　　　LIST,10,0[CR]

　　　LIST,13+5[CR]

　　　LIST,12+2,13+5[CR]

　　　LIST,0+2,0+5[CR]

MI[CR]

THE LETTERS MI STAND FOR MANUAL INTERRUPT. THIS COMMAND MAY BE
GIVEN WHENEVER THE USER GETS INTO THE OS-3 CONTROL MODE AND WISHES
TO RETURN TO EDIT COMMAND MODE WITHOUT DISRUPTING THE CONTENTS OF
HIS WORK AREA. ANY PARTIALLY EXECUTED INSTRUCTION WHICH WAS IN
PROCESS WHEN THE USER WENT TO CONTROL MODE WILL BE TERMINATED. MI
SHOULD BE TYPED ONLY IF THE USER HAS ENTERED CONTROL MODE FROM THE
EDITOR. FOR EXAMPLE, THIS COMMAND WOULD BE USED TO RETURN TO EDIT
AFTER DEPRESSING [BREAK] TO TERMINATE A LISTING.

AN EXAMPLE OF A MI COMMAND IS:

    MI[CR]

MOVE,(LINE 1),(LINE 2),(LINE 3)[CR]

THE MOVE COMMAND WILL ERASE (LINE 1) THROUGH (LINE 2)
FROM THEIR POSITION AND INSERT THEM IN THE SAME ORDER AFTER (LINE 3).
ALL THREE PARAMETERS MUST BE SPECIFIED FOR THE COMMAND TO
BE EXECUTED PROPERLY. THE LINE NUMBERS ASSOCIATED WITH (LINE 1)
THROUGH (LINE 2) ARE CARRIED WITH THEM.
IF A PARAMETER ERROR IS DETECTED, THE MOVE DOES NOT TAKE PLACE.

EXAMPLES OF MOVE COMMANDS ARE:

MOVE,10,20,45[CR]

MOVE,45,45,3[CR]

MOVE,67,72,48[CR]

MOVE,10+2,17+1,160+3[CR]

OUT,(LUN),N,R=(NUMBER 1),S=(NUMBER 2)[CR]

THE OUT COMMAND IS USED TO COPY INFORMATION FROM THE WORK
AREA TO THE LOGICAL UNIT SPECIFIED. THIS TEXT IS COPIED IN BINARY
CODED DECIMAL (BCD) OR "HOLLERITH" FORM. IF NO (LUN) IS SPECIFIED,
THEN LOGICAL UNIT 54 IS ASSUMED.
(NUMBER 1) SPECIFIES THE LINE LENGTH TO BE WRITTEN OUT. IF NO
VALUE IS SPECIFIED THEN VARIABLE LENGTH RECORDS ARE WRITTEN. N IS
USED TO SPECIFY THAT SEQUENCE NUMBERS ARE TO BE STORED IN THE
LAST 5 SPACES OF THE LINE. N WILL PRESET THE LINE LENGTH TO 80
IF NO R WAS SPECIFIED. (NUMBER 2) IS THE NUMBER OF CHARACTERS
TO SHIFT THE LINE TO THE RIGHT. IT IS USEFUL TO LINE UP (CENTER)
PRINTED MATERIAL ON A LINE PRINTER. IF S IS OMITTED THEN S IS
SET TO 1 FOR LINE PRINTER OR TELETYPE OUTPUT; OTHERWISE IT IS ZERO.
FOR MOST CASES N, R, AND S MAY BE OMITTED. EDIT WILL WRITE
A FILE MARK AT THE END OF THE OUTPUT AND BACKSPACE OVER IT, IF POSSIBLE.
LATER OUTPUT TO THIS UNIT WOULD THEN DESTROY THE FILE MARK. THE
OUT COMMAND WILL REWIND ALL REWINDABLE LOGICAL UNITS NUMBERED
BETWEEN 50 AND 59.

A NAME MAY BE USED IN PLACE OF THE LOGICAL UNIT NUMBER
WITH THIS COMMAND. IF THIS NAME REFERS TO A CURRENTLY SAVED FILE,
THEN THIS FILE WILL BE REWOUND AND USED. IF THE NAME HAS NOT BEEN
PREVIOUSLY DEFINED, THEN A NEW FILE WILL BE GENERATED AND SAVED.

EXAMPLES OF OUT COMMANDS ARE:

    OUT,23[CR]

    OUT,41,N[CR]

    OUT,50,N,R=24[CR]

    OUT,TEST[CR]

    OUT,,S=10[CR]

    OUT,3,N,R=120,S=4[CR]

OUTPUT,(LUN),N,R=(NUMBER 1),S=(NUMBER 2)[CR]

THIS IS AN ALTERNATE FORM OF THE OUT COMMAND.

EXAMPLES OF OUTPUT COMMANDS ARE:

OUTPUT,23[CR]

OUTPUT,41,N[CR]

OUTPUT,50,N,R=24[CR]

OUTPUT,TEST[CR]

OUTPUT,S=10[CR]

OUTPUT,3,N,R=120,S=4[CR]

RELEASE,(LUN),(LUN),...,(LUN)[CR]

THE RELEASE COMMAND DESTROYS THE INFORMATION STORED ON EACH
OF THE LOGICAL UNITS LISTED AND GIVES UP THE FILE SPACE THAT
WAS USED. THE LOGICAL UNITS ARE STILL DEFINED, HOWEVER.

NAMES MAY BE USED IN PLACE OF THE LOGICAL UNIT NUMBERS IN
THIS COMMAND. THESE NAMES MUST REFER TO CURRENTLY SAVED FILES,
HOWEVER.

EXAMPLES OF RELEASE COMMANDS ARE:

RELEASE,33,67,21[CR]

RELEASE,32[CR]

RELEASE,DATA,PROGRAM[CR]

REP,(LINE 1),(LINE 2)[CR]

THE REP COMMAND FUNCTIONS AS A COMBINATION OF THE PREVIOUS
ERASE AND INSERT COMMANDS. THE REP COMMAND WILL ERASE (LINE 1)
THROUGH (LINE 2) IN THE USER'S EDIT WORK AREA AND THEN SHIFT TO TEXT
MODE FOR THE USER TO ENTER NEW LINES OF INFORMATION JUST AS WITH
AN INSERT COMMAND. ANY NUMBER OF NEW LINES MAY BE ENTERED; THEY
WILL NOT HAVE SEQUENCE NUMBERS ASSOCIATED WITH THEM. IF (LINE 2)
IS OMITTED, THEN ONLY (LINE 1) WILL BE ERASED BEFORE THE COMPUTER
SWITCHES TO TEXT MODE. EACH LINE ENTERED IN TEXT MODE MUST
END WITH [CR]. TO RETURN TO COMMAND MODE, THE USER SHOULD DEPRESS
[ESC], [CS,W], OR [ALT MODE].

EXAMPLES OF REP COMMANDS ARE:

    REP,5,7[CR]

    REP,89[CR]

    REP,15+2,17+1[CR]

REPLACE,(LINE 1),(LINE 2)[CR]

THIS IS AN ALTERNATE FORM OF THE REP COMMAND.

EXAMPLES OF REPLACE COMMANDS ARE:

REPLACE,5,7[CR]

REPLACE,89[CR]

REPLACE,15+2,17+1[CR]

RESEQ,S,I(CR)

THE RESEQUENCE COMMAND CAUSES LINE NUMBERS TO BE ASSIGNED TO EACH LINE IN THE USER'S EDIT WORK AREA. THESE NUMBERS WILL START WITH S AND INCREASE IN INCREMENTS OF I. IF THE PARAMETERS S AND I ARE OMITTED, THEN THE LAST VALUES OF S AND I GIVEN SINCE ONE ENTERED THE EDIT PROGRAM WILL BE USED. IF NO VALUES FOR S AND I HAVE EVER BEEN SPECIFIED, THEN BOTH S AND I ARE ASSIGNED THE VALUE OF ONE.

EXAMPLES OF RESEQUENCE COMMANDS ARE:

RESEQ,100,100(CR)

RESEQ(CR)

REWIND,(LUN),(LUN),...,(LUN)[CR]

THE REWIND COMMAND IS USED TO RETURN THE USER TO THE
START OF THE LOGICAL UNITS SPECIFIED. ANY NUMBER OF LOGICAL
UNITS MAY BE REWOUND USING A SINGLE COMMAND. EACH OF THE
LOGICAL UNITS LISTED MUST HAVE BEEN PREVIOUSLY EQUIPPED AS
A FILE.

EXAMPLES OF REWIND COMMANDS ARE:

    REWIND,45,37,02,99[CR]

    REWIND,02[CR]

SAR,(LINE 1),(LINE 2),/STRING/,/REPLACEMENT/(CR)

THIS COMMAND WILL SEARCH THE USER'S EDIT WORK AREA
LOOKING FOR A STRING OF CHARACTERS ANYWHERE IN A LINE WHICH IDENT-
ICALLY MATCHES STRING. IF A MATCH IS FOUND THE CHARACTERS WHICH
MATCHED STRING ARE REPLACED BY REPLACEMENT. IF THE REPLACEMENT
STRING IS NULL (I.E. //) THEN THE STRING IS DELETED. IF THE
REPLACEMENT PARAMETER IS OMITTED THEN THE SEQUENCE NUMBER OF EACH
LINE CONTAINING STRING IS PRINTED. (LINE 1) AND (LINE 2)
ARE, RESPECTIVELY, THE FIRST AND LAST LINE NUMBER WHICH THE
USER WISHES TO HAVE SEARCHED. IF BOTH PARAMETERS ARE OMITTED, THEN
ALL THE WORK AREA IS SEARCHED. IF (LINE 1) IS OMITTED THEN LINES FROM
THE BEGINNING OF THE WORK AREA THROUGH (LINE 2) ARE SEARCHED. IF
(LINE 2) IS OMITTED, THEN (LINE 1) IS SEARCHED. IF (LINE 2) IS ZERO
(LINE 1) AND ALL LINES AFTER IT ARE SEARCHED.

IF THE USER SPECIFIES A LINE SEQUENCE NUMBER
WHICH DOES NOT EXIST IN THE WORK AREA, AN ERROR MESSAGE IS
PROVIDED AND THE COMPUTER RETURNS TO THE COMMAND MODE.

THE SLASHES (/) ARE DELIMITING CHARACTERS--ANY
PRINTING CHARACTERS EXCEPT SEMI-COLON (;) OR COMMA (,) MAY BE USED.
HOWEVER, THE CHARACTER MUST NOT OCCUR WITHIN STRING OR REPLACEMENT.

EXAMPLES OF SAR COMMANDS ARE:

SAR,1,5,/ZIP/,/ZAP/(CR)

SAR,7,9,'ZILCH',(GASP((CR)

SAR,,,/BUFFER/(CR)

SAR,1,,/A=B/,/A=B(1)/(CR)

SAR,,3,/IDINT/,/IDENT/(CR)

SBPFM,(LUN),(LUN),....,(LUN)[CR]

        THIS COMMAND WILL CAUSE EACH LOGICAL UNIT
SPECIFIED TO BE SPACED BACKWARD UNTIL A FILE MARK IS PASSED, OR
THE BEGINNING OF THE FILE IS FOUND. A FILE MARK MAY BE THOUGHT
OF AS A MARK WHICH SEPARATES INDIVIDUAL SUBFILES ON THE SAME LOGICAL
UNIT. A LOGICAL UNIT MAY BE LISTED MORE THAN ONCE; THE SEARCH
BACK COMMAND WILL BE EXECUTED AS MANY TIMES AS THE (LUN) IS LISTED.
ALL LOGICAL UNITS LISTED IN THIS COMMAND MUST HAVE BEEN PREVIOUSLY
DEFINED AS FILES, USING EQUIP COMMANDS.

EXAMPLES OF SEARCH BACK PAST FILE MARK COMMANDS ARE:

      SBPFM,23,09,78[CR]

      SBPFM,89,89,89,34[CR]

      SBPFM,33[CR]

SEFB,(LUN),(LUN),....,(LUN)[CR]

        THIS IS AN ALTERNATE FORM OF THE SBPFM INSTRUCTION.

EXAMPLES OF SEFB COMMANDS ARE:

      SEFB,21,33,76[CR]

      SEFB,37[CR]

      SEFB,29,29,29[CR]

SEFF,(LUN),(LUN),....,(LUN)[CR]

THIS COMMAND WILL CAUSE EACH LOGICAL UNIT
SPECIFIED TO BE SPACED FORWARD UNTIL A FILE MARK IS PASSED, OR
THE END OF THE FILE IS FOUND. EACH OF THE LOGICAL UNITS SPECIFIED
MUST HAVE BEEN PREVIOUSLY DEFINED. A LOGICAL UNIT MAY BE LISTED
MORE THAN ONCE;   THE SEARCH FORWARD COMMAND WILL BE EXECUTED AS
MANY TIMES AS THE (LUN) IS LISTED. THIS COMMAND IS VALID ONLY FOR
LOGICAL UNITS WHICH REFER TO FILES.

EXAMPLES OF THE SEFF COMMAND ARE:

    SEFF,39,73,21[CR]

    SEFF,35[CR]

    SEFF,26,26,26[CR]

SFPFM,(LUN),(LUN),....,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE SEFF COMMAND.

EXAMPLES OF SFPFM COMMANDS ARE:

    SFPFM,34,67,90,01[CR]

    SFPFM,23,23,23[CR]

    SFPFM,37[CR]

SRCH,(LINE 1),(LINE 2),/STRING/,/REPLACEMENT/[CR]

    THIS IS AN ALTERNATE FORM OF THE SAR COMMAND.

EXAMPLES OF SRCH COMMANDS ARE:

    SRCH,1,5,/ZIP/,/ZAP/[CR]

    SRCH,7,9,'ZILCH',(GASP([CR]

    SRCH,,,/BUFFER/[CR]

    SRCH,1,,/A=B/,/A=B(1)/[CR]

    SRCH,,3,/IDINT/,/IDENT/[CR]

STATUS,(LUN),(LUN),...,(LUN)[CR]

THE STATUS COMMAND WILL TYPE INFORMATION ABOUT EACH OF THE LOGICAL UNITS LISTED (SUCH AS READ ONLY, FILE MARK READ, END OF DATA, ETC.). THIS COMMAND IS NOT THE SAME AS THE CONTROL MODE STATUS COMMAND.

EXAMPLES OF A COMMAND MODE STATUS INSTRUCTION ARE:

        STATUS,33,12[CR]

        STATUS,47[CR]

        STATUS,ZAP[CR]

TAB,T1,T2,...,T6[CR]

THE TAB COMMAND CAUSES THE COMPUTER TO SET UP TO 6 TAB STOPS
AT THE POINTS SPECIFIED. WHENEVER THE USER DEPRESSES [TAB] (EQUIVALENT
TO [CS,I]), THE COMPUTER WILL TAB TO THE NEXT STOP SET EXACTLY
AS A TYPEWRITER WOULD. THIS TAB TAKES PLACE WHETHER THE CARRIAGE
ON THE USER'S TELETYPE ACTUALLY MOVES OR NOT. UNLESS A USER
SPECIFIES WHERE HE WISHES TO SET TAB STOPS, THEY ARE PRESET TO
10, 20, 40, AND 72.

TAB STOPS MUST BE LISTED IN ASCENDING ORDER.

EXAMPLES OF TAB COMMANDS ARE:

TAB,7,10,30,50[CR]

TAB,10,45[CR]

TAB,7[CR]

TABS,T1,T2,...,T6[CR]

THIS IS AN ALTERNATE FORM OF THE TAB COMMAND.

EXAMPLES OF TABS COMMANDS ARE:

TABS,7,10,30,50[CR]

TABS,10,45[CR]

TABS,7[CR]

TAPE[CR]

     THE TAPE COMMAND IS USED TO INDICATE THAT
ONE WISHES TO ENTER INFORMATION TO THE EDIT WORK AREA FROM A
PREPUNCHED PAPER TAPE. THE TAPE COMMAND CLEARS THE WORK AREA,
AND PLACES THE COMPUTER IN TEXT MODE WAITING TO READ THE TAPE.
NO SEQUENCE NUMBERS ARE PROVIDED, AND NO COLONS ARE PRINTED.

     THE PREPUNCHED PAPER TAPE SHOULD HAVE BOTH A LEADER AND A
TRAILER PREPARED BY PUNCHING A SERIES OF 50 TO 100 [RUBOUT]
CHARACTERS. THIS MAY BE DONE QUITE EASILY BY DEPRESSING [REPT,
RUBOUT] FOR ABOUT 5 SECONDS. INDIVIDUAL LINES OF INFORMATION
ON THE TAPE MUST BE SEPARATED BY [CR],[LF] IN THAT ORDER.
RUBOUTS WITHIN THE TEXT ARE IGNORED.

     A CARRIAGE RETURN, [CR], MUST FOLLOW THE COMMAND TAPE.
AFTER READING THE TAPE THE USER SHOULD DEPRESS [ESC], [CS,W],
OR [ALT MODE] TO RETURN TO THE EDIT COMMAND MODE.

AN EXAMPLE OF A TAPE COMMAND IS:
    TAPE[CR]

TTP[CR]

  THIS COMMAND WILL GENERATE A PAPER TAPE ON THE TELETYPE.
THE PROGRAM WILL PUNCH OUT 5 INCHES OF [RUBOUT] CHARACTERS, A
[CS,R] , THE TEXT, [CS,T] , AND 5 MORE INCHES OF
OF RUBOUTS. AFTER ENTERING THIS COMMAND AND DEPRESSING [CR],
THE USER SHOULD IMMEDIATELY ACTIVATE THE PAPER TAPE PUNCH ON
HIS TELETYPE.

  THIS COMMAND MAY BE TERMINATED BY THE USER DEPRESSING [BREAK].
THIS ACTION WILL RETURN THE TELETYPE TO CONTROL MODE AND ANY PAPER
TAPE GENERATED WILL BE USELESS. ONE MUST THEN TYPE THE CONTROL
MODE MI[CR] TO RETURN TO THE EDIT COMMAND MODE.

AN EXAMPLE OF A TELETYPE PUNCH COMMAND IS:

  TTP[CR]

UNEQUIP,(LUN)[CR]

THE UNEQUIP STATEMENT CAUSES THE (LUN) SPECIFIED TO BE
DELETED FROM THE AVAILABLE LOGICAL UNIT NUMBERS. IF (LUN)
IS A FILE WHICH HAS NOT BEEN SAVED, ITS CONTENTS ARE DESTROYED.
IF (LUN) IS A FILE WHICH HAS BEEN SAVED BY THE USER, THE DATA
IS SAVED.

IF (LUN) IS AN OUTPUT DEVICE, SUCH AS THE PRINTER OR CARD
PUNCH, THE INFORMATION ON (LUN) IS SENT TO THE PROPER OUTPUT
DEVICE AT THIS TIME. A (LUN) WHICH HAS BEEN UNEQUIPPED MAY NOW
BE REDEFINED IN A NEW EQUIP STATEMENT. LOGICAL UNITS 59 THROUGH
61 MAY NOT BE UNEQUIPPED.

EXAMPLES OF UNEQUIP COMMANDS ARE:

        UNEQUIP,04[CR]

        UNEQUIP,99[CR]

WEOF,(LUN),(LUN),...,(LUN)[CR]

THE WEOF COMMAND PLACES A FILE MARK ON EACH OF THE LOGICAL
UNITS SPECIFIED. EACH OF THE LOGICAL UNITS MUST HAVE BEEN
PREVIOUSLY DEFINED.

EXAMPLES OF WEOF COMMANDS ARE:

    WEOF,37,69,43[CR]

    WEOF,76[CR]

WFM,(LUN),(LUN),...,(LUN)[CR]

THIS IS AN ALTERNATE FORM OF THE WEOF COMMAND.
EXAMPLES OF WFM COMMANDS ARE:

    WFM,45,93,01[CR]

    WFM,1[CR]